

REMARKS

Claims 1-50 are pending in the application and stand rejected.

Objections to the drawings

The drawings are objected to as failing to comply with 37 CFR 1.83(a). Applicants hereby submit replacement figures that have been amended to add labels as per the Examiner's express request.

Double Patenting

Claims 10-13, 23-26, 36-39, and 47-50 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of co-pending U.S. Application Serial No. 10/966,698. Applicants do not agree with the Examiner that these claims are not patentably distinct from claims of the co-pending application but, in the interest of passing this case to issue, hereby submit a Terminal Disclaimer in accordance with 37 C.F.R. 1.321(c).

Rejection under 35 U.S.C §103

Claims 1-8, 14-19, 21, 27-34, and 40-45 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,801,312 to Lorraine et al. in view of U.S. Pat. No. 5,513,532 to Beffy et al. In particular, the Examiner finds that Lorraine discloses all claimed elements of claims 1, 2, 14, 27, 28, 40 and 41, with the exception of a processor configured to store and reverse the signals generated by the laser vibrometer, and a modulator configured to modulate the at least one exciter beam generated by the exciter in accordance with the reversed signals. The Examiner further finds that Beffy teaches inverting or time-reversing signals received from a test object and modulating an emitter in accordance with the reversed signals in order to improve the detection of defects within the test object. The Examiner finally opines that it would have been obvious to the skilled person to provide the system of Lorraine with a processor which both

stores and reverses the signals received from the vibrometer and a modulator for modulating the exciter beam in accordance with the reversed signals as taught by Beffy in order to improve the test results and provide a more accurate indication of flaws within the test object.

Applicants respectfully submit that the Examiner's holding of obviousness does not satisfy the minimum requirements set forth in the Rules and clearly enunciated in the MPEP. "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP §2142. The Examiner has not set forth such motivation in either of the cited references nor has she invoked the general knowledge of those skilled in the art. Rather, the Examiner has merely stated the benefit conferred by the invention, which is not setting forth the required showing of motivation but rather merely applying the benefit of hindsight to its fullest in combining different references with the benefit of the invention itself as an explicit roadmap.

Applicants wish to note that they do not agree with the Examiner that the combination of these two references anticipates the claims but do not explicitly comment in light of the lack of motivation for making the combination asserted by the Examiner.

Applicants thus respectfully submit that the Lorraine and Beffy references are not properly combined because there is no motivation on the face of either of these references for the skilled person to attempt such a combination, and request that the Examiner kindly withdraw this rejection.

Claims 2-8 depend from claim 1, claims 15-19 and 21 depend from claim 14, claims 28-34 depend from claim 27, and claims 41-45 depend from claim 40. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, in light of the above discussion, Applicants submit that claims 2-8, 15-19, 21, 28-34 and 41-45 are also allowable.

Claims 1-9, 14-22, 27-35, and 40-46 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,657,732 to Pepper et al. in view of Beffy et al. and U.S. Pat. No. 5,092,336 to Fink. The present Application, Serial No. 10/809,237, and Patent No. 6,657,732 were, at the time the invention of Application Serial No. 10/809,237 was made, owned in their

Amendments to the Drawings

The attached sheets of drawings replace original sheets 1 and 3 including Figs. 1 and 3. In the figures, diagram boxes 110, 120, 130, 140, 150, 310 and 320 have been labeled in accordance with the Examiner's express request.

Attachments: Replacement sheets with Figs. 1 and 3